

104TH CONGRESS
1ST SESSION

H. R. 655

AN ACT

To authorize basic research, development, and demonstration on hydrogen as a fuel, and for other purposes.

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To authorize basic research, development, and demonstration on hydrogen as a fuel, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Hydrogen Future Act
5 of 1995”.

6 **SEC. 2. FINDINGS.**

7 The Congress finds that—

8 (1) fossil fuels, the main energy source of the
9 present, have provided this country with tremendous
10 supply but are limited and polluting;

11 (2) additional basic research and development
12 are needed to encourage private sector investment in
13 development of new and better energy sources and
14 enabling technologies;

15 (3) hydrogen holds tremendous promise as a
16 fuel, because it can be extracted from water and can

1 be burned much more cleanly than conventional
2 fuels;

3 (4) hydrogen production efficiency is a major
4 technical barrier to society collectively benefiting
5 from one of the great energy sources of the future;

6 (5) an aggressive, results-oriented, multiyear re-
7 search initiative on efficient hydrogen fuel produc-
8 tion and use should continue; and

9 (6) the current Federal effort to develop hydro-
10 gen as a fuel is inadequate.

11 **SEC. 3. PURPOSES.**

12 The purposes of this Act are—

13 (1) to provide for a basic research, develop-
14 ment, and demonstration program leading to the
15 production, storage, transport, and use of hydrogen
16 for industrial, residential, transportation, and utility
17 applications; and

18 (2) to provide for advice from academia and the
19 private sector in the implementation of the Depart-
20 ment of Energy hydrogen research, development,
21 and demonstration program to ensure that economic
22 benefits of the program accrue to the United States.

23 **SEC. 4. DEFINITIONS.**

24 For purposes of this Act—

1 (1) the term “demonstration” means a valida-
2 tion of the technical feasibility of a theory or proc-
3 ess;

4 (2) the term “Department” means the Depart-
5 ment of Energy; and

6 (3) the term “Secretary” means the Secretary
7 of Energy.

8 **SEC. 5. RESEARCH AND DEVELOPMENT.**

9 (a) AUTHORIZED ACTIVITIES.—Pursuant to this sec-
10 tion, the Spark M. Matsunaga Hydrogen Research, Devel-
11 opment, and Demonstration Act of 1990 and the Energy
12 Policy Act of 1992, and in accordance with the purposes
13 of this Act, the Secretary shall provide for a hydrogen en-
14 ergy basic research, development, and demonstration pro-
15 gram relating to production, storage, transportation, and
16 use of hydrogen, with the goal of enabling the private sec-
17 tor to demonstrate the technical feasibility of using hydro-
18 gen for industrial, residential, transportation, and utility
19 applications. In establishing priorities for Federal funding
20 under this section, the Secretary shall survey private sec-
21 tor hydrogen activities and take steps to ensure that ac-
22 tivities under this section do not displace or compete with
23 the privately funded hydrogen activities of United States
24 industry.

1 (b) SCHEDULE.—Within 180 days after the date of
2 the enactment of the later of this Act or an Act providing
3 appropriations for programs authorized by this Act, the
4 Secretary shall solicit proposals from all interested parties
5 for carrying out the research, development, and dem-
6 onstration activities authorized under this section. The
7 Secretary may consider a proposal from a contractor who
8 manages and operates a Department facility under con-
9 tract with the Department, and the contractor may per-
10 form the work at that facility or any other facility. Within
11 180 days after such solicitation, if the Secretary identifies
12 proposals worthy of Federal assistance, financial assist-
13 ance shall be awarded under this section competitively,
14 using peer review of proposals with appropriate protection
15 of proprietary information. The Secretary shall use appro-
16 priations authorized by this Act that are not allocated for
17 such awards to carry out research, development, and dem-
18 onstration activities in accordance with the purposes of
19 this Act.

20 (c) COST SHARING.—(1) Except as otherwise pro-
21 vided in section 6, for research proposals funded under
22 this Act, the Secretary shall require a commitment from
23 non-Federal sources of at least 25 percent of the cost of
24 the proposed program. The Secretary may reduce or elimi-
25 nate the non-Federal requirement under this paragraph

1 if the Secretary determines that the research is of such
2 a purely basic or fundamental nature that a non-Federal
3 commitment is not obtainable.

4 (2) The Secretary shall require at least 50 percent
5 of the costs directly and specifically related to any develop-
6 ment or demonstration project under this Act to be pro-
7 vided from non-Federal sources.

8 (d) CERTIFICATIONS AND REQUIREMENTS.—Before
9 financial assistance is provided under this section or the
10 Spark M. Matsunaga Hydrogen Research, Development,
11 and Demonstration Act of 1990—

12 (1) the Secretary must ensure that providing
13 such financial assistance is consistent with the
14 Agreement on Subsidies and Countervailing Meas-
15 ures as approved in section 101 of the Uruguay
16 Round Agreements Act (19 U.S.C. 3511); and

17 (2) industry participants must certify that they
18 have made reasonable efforts to obtain non-Federal
19 funding for the entire cost of the project, and that
20 such non-Federal funding could not be reasonably
21 obtained.

22 (e) DUPLICATION OF PROGRAMS.—The Secretary
23 shall not carry out any activities under this section that
24 unnecessarily duplicate activities carried out elsewhere by
25 the Federal Government or the private sector.

1 **SEC. 6. HIGHLY INNOVATIVE TECHNOLOGIES.**

2 Of the amounts made available for carrying out sec-
3 tion 5, up to 5 percent shall be used to support basic re-
4 search on highly innovative energy technologies. Such
5 amounts shall not be subject to the cost sharing require-
6 ments in section 5(c).

7 **SEC. 7. TECHNOLOGY TRANSFER.**

8 The Secretary shall foster the exchange of generic,
9 nonproprietary information and technology, developed
10 pursuant to section 5, among industry, academia, and the
11 Federal Government. The Secretary shall ensure that eco-
12 nomic benefits of such exchange of information and tech-
13 nology will accrue to the United States economy.

14 **SEC. 8. REPORTS TO CONGRESS.**

15 Within 18 months after the date of the enactment
16 of this Act, and annually thereafter, the Secretary shall
17 transmit to the Congress a detailed report on the status
18 and progress of the Department's hydrogen research and
19 development program, with particular emphasis on activi-
20 ties carried out pursuant to section 7 of this Act. Such
21 report shall include an analysis of the effectiveness of such
22 program, to be prepared and submitted by the Hydrogen
23 Technical Advisory Panel established under section 108
24 of the Spark M. Matsunaga Hydrogen Research, Develop-
25 ment, and Demonstration Act of 1990. Such Panel shall
26 also make recommendations for improvements to such pro-

1 gram if needed, including recommendations for additional
2 legislation.

3 **SEC. 9. COORDINATION AND CONSULTATION.**

4 (a) COORDINATION WITH OTHER FEDERAL AGEN-
5 CIES.—The Secretary shall coordinate all hydrogen re-
6 search and development activities within the Department,
7 and with the activities of other Federal agencies involved
8 in similar research and development, including the De-
9 partment of Defense, the Department of Transportation,
10 and the National Aeronautics and Space Administration.
11 Further, the Secretary shall pursue opportunities for co-
12 operation with such Federal entities.

13 (b) CONSULTATION.—The Secretary shall consult
14 with the Hydrogen Technical Advisory Panel established
15 under section 108 of the Spark M. Matsunaga Hydrogen
16 Research, Development, and Demonstration Act of 1990
17 as necessary in carrying out this Act.

18 **SEC. 10. AUTHORIZATION OF APPROPRIATIONS.**

19 (a) GENERAL AUTHORIZATION.—There are author-
20 ized to be appropriated, to carry out the purposes of this
21 Act—

- 22 (1) \$25,000,000 for fiscal year 1996;
23 (2) \$35,000,000 for fiscal year 1997; and
24 (3) \$40,000,000 for fiscal year 1998.

1 (b) RELATED AUTHORIZATIONS.—(1) For each of
2 the fiscal years 1996, 1997, and 1998, the total amount
3 which may be obligated for Energy Supply Research and
4 Development Activities shall not exceed the total amount
5 obligated for such activities in fiscal year 1995.

6 (2) Paragraph (1) of this subsection does not author-
7 ize the appropriation of any Federal funds.

Passed the House of Representatives May 2, 1995.

Attest:

Clerk.